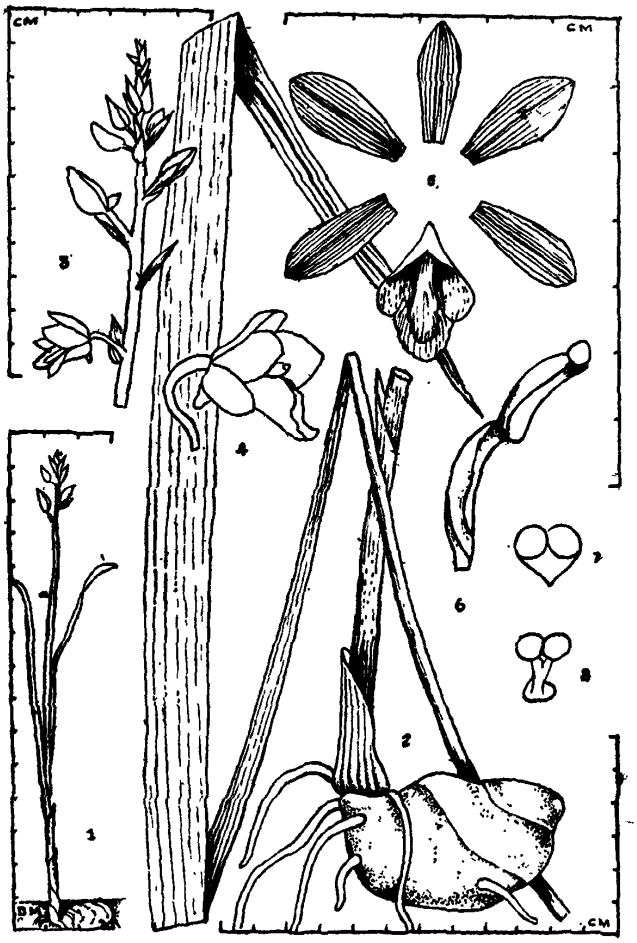
EULOPHIA MANNII HOOK. F.—A SCARCELY KNOWN GROUND ORCHID FROM ASSAM

While botanically exploring in the Manas Wild Life Sanctuary, Kamrup district, Assam, in June during early rains, attention was drawn to what appeared like hovering yellow moths amidst the dense, tall grass. A closer look resolved the 'moths' to be orchid flowers on long, slender spikes and narrow, oblong leaves from a knotted stout rhizome, shallowly buried in the wet muck, the vegetative parts all masked in the general greenery, with only the flowers highlighted. Several plants were collected and studied critically. The rhizome was transplanted, but possibly due to the altitude at Shillong, there was no growth. The orchid could easily be identified to *Eulophia mannii* described by Hooker f. in 1890 on a solitary gathering of G. *Mann* from Upper Assam, and very much earlier (1872) described by Reichenbach f. as *Cyrtopera mannii* on the basis of the same lone collection. Subsequently in 1896 King and Pantling described this from the tropical valleys of Sikkim. Scrutiny of material borrowed from the Central National Herbarium, while confirming the identification, also confirmed that excepting for rather doubtful collection from the Khasi Hills, and one from Manipur, in all this interval of almost a century, this Orchid has not been collected, either from the vague type area of 'Upper Assam' or elsewhere in Assam. Obviously not-withstanding its large size, it has escaped attention of plant collectors, due to its grass-like foliage being lost with the rest of the tall grasses, and hardly any had collected during the rains when it can be spotted by its flowers but collecting is uncomfortable due to the slushy and leech-infested 'beels' and grassland. Undoubtedly this hitherto scarcely known orchid, will be found in other places too during the rainy season and to facilitate this a detailed description with analytical drawings, is provided here.

Eulophia mannii Hook. f. Fl. Brit. India 6: 4. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Calcutta 8: 177-178. 1898. *Cyrtopera mannii* Reichb. f. in Flora 274. 1872.

Terrestrial, rhizomatous, glabrous herbs 1.45-1.75 m tall. *Rhizome* slightly dorsiventrally stout, white, fleshy, transversely fusiform with three annular markings, 3.0-5.0 × 1.5-3.5 cm; roots few, slender, white. *Pseudostems formed by the sheaths enclosing* the bases of leaves and scape, 35.0-40.0 cm long, *ca* 2 cm thick at base; sheaths 2,



Eulophia mannii Hook. f.

Figs. 1-8: 1. Habit. 2. Rhizome and leaf. 3. Inflorescence. 4. Flower. 5. Perigone. 6. Ovary with column. 7. Anther, 8. Pollinia (*Hajra* 57799).

long, pale greenish, 11.0-32.0 cm long. *Leaves* 2, linear-acuminate or narrowly linear-lanceolate, with 3 equally prominent nerves, 80.0-90.0 × 1.5-2.5 cm. Scapes enclosed by 2-3 sheaths at base, 1.45-1.75 m long. *Raceme* somewhat axillary 9-15-flowered, 10.0-17.0 cm long. Floral bracts solitary, oblanceolate, acute, half as long as the slender stalked ovary. *Flower ca* 2.2 cm vertically, 2.0-4.0 cm across, yellow or yellowish-green; pedicel *ca* 2.0 cm long, greenish; dorsal sepal oblanceolate, acute at apex, 9-nerved, greenish-yellow, 1.8-2.0 × 0.7-1.0 cm; lateral sepals subequal, *ca* 1.8 × 0.7 cm, greenish-yellow, inserted on the column, free from the sac of lip; petals broadly obovate, yellowish, 11-nerved, 1.2-1.7 × 0.8-1.0 cm; lip yellow, 10-11-nerved, saccate at base, 1.6-2.0 cm long; spur green at tip; column *ca* 2.0 cm, yellowish; anther beaked; pollinia 2 *ca* 1 mm long, globose; *caudicle* cylindrical, *ca* 1 mm long, gland triangular.

Flowering: June-August.

Specimens examined: ASSAM: Kamrup, Manas Wild Life Sanctuary, 15-6-1974, *Hajra* 57799 (ASSAM). MEGHALAYA: Khasi Hills, (Herb. Sulp. Kurz)? June 1877. MANIPUR: Tummo Hill, 7-7-1890, *Prazer* 155. SIKKIM: Tropical Valleys, Aug. 1896, *Pantling* 457 (CAL).

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INDOTRISTICHA TIRUNELVELIANA SHARMA, KARTHIK. & SHETTY—A NEW SPECIES OF PODOSTEMACEAE FROM SOUTH INDIA

During the botanical exploration around Tirukkurungudi in Tirunelveli District, Tamil Nadu (formerly Madras), in November 1969, an interesting member of Podostemaceae, in vegetative condition was collected from the rapids. It could not be matched with any specimen of Podostemaceae represented in the Madras Herbarium, Coimbatore (MH). Later, in February, 1972 the spot was visited again and the plant was collected in flowering and fruiting condition. The water level in the rapids was low and the base of the plant was seen attached to the substratum by means of hapterae. The flower and fruit bearing portion of the plant is normally not submerged and comes much above water level, bends slightly downward and curves up again.

In July 1972, the place was visited again to observe the early stages of growth and development of this taxon. The young seedlings were almost erect and protruding out of the water level. They were found to be attached to the rocks by means of long thread like hepterae (Pl. I, fig. 3). Many seedlings were having very short, just developing hapterae. The population of seedlings showed luxuriant growth and abundance wherever shade was available (Pl. I, fig. 1). The rocky areas exposed directly to the sun supported thin population (Pl. I, fig. 2).